

4/19/07

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	Dieter FISCHER
Serial no.	:	10/531,341
Filed	:	with an effective filing date of November 6, 2003
For	:	ELECTRO-PNEUMATIC SWITCHING UNIT
Group Art Unit	:	2832
Examiner	:	Tisha D. LEWIS
Docket	:	ZAHFRI P734US

The Commissioner for Patents
U.S. Patent & Trademark Office
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RESPONSE

Dear Sir:

[XXX] NO FEES ARE PAYABLE WITH RESPECT TO THIS RESPONSE.
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In response to the official action mailed January 24, 2007, please enter the following before reconsideration of this application.

In the Specification:

Please amend paragraph [021] of the specification as follows in which the specification additions are shown by underlining and the specification deletions are shown by strikeout. Please enter the replacement specification paragraphs into the record of this case.

In the Claims:

Please amend claim 3 as follows in which the claim additions are shown by underlining and/or the claim deletions are shown by strikeout or brackets. Please enter the amended claims into the record of this case. Please also enter new claims 5 and 6 into the record of this case.

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[021] Fig. 2 shows, by way of example in enlarged representation, one gear lever 16 for a gear shift pattern 28 designated as "superimposed H". On the side of the gear lever 16 is located one toggle switch 22 to preselect the switching of the splitter group transmission 12. On the front side of the gear lever 16 is provided one other toggle switch 24 of which the range-change group transmission 14 is switched. Both toggle switches 22, 24 are electric switches connected via one electric connecting line 26 with the control device 20. In one switching with the gear shift pattern 28, every end position of the gear lever 16 is coordinated in the forward gears with two ratio steps which respectively differ by the speed ratio change of the range-change transmission 14. The reduction ratios one to four and the reverse gear are switched in the toggle lever lever position "slow"; the gears five to eight are switched in the toggle lever position "quick". The neutral position of the main transmission part 10 is situated in the gate between the reduction ratios three and four or seven and eight.

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1-2. (CANCELED)

3. (CURRENTLY AMENDED) An electro-pneumatic switching unit for a vehicle transmission (6) comprising;

[[one]] a splitter group transmission (12) pneumatically switched via a first set of valves (36, 38);

[[one]] a range-change group transmission (14) pneumatically switched via a second set of valves (44, 46), ~~the switchings and switching~~ of which can be manually preselected by a vehicle driver [[on]] via a gear lever (16);

[[one]] a locking device (54, 56) for mechanically preventing the manual switching of inadmissible reduction ratios of a vehicle transmission (6);

[[one]] a device (30, 42, 64) for preventing pneumatic switching of the inadmissible reduction ratios of the vehicle transmission (6); and

one electronic control device (20),

wherein the locking device (54, 56) ~~[[for]] is a mechanical device which prevents the vehicle transmission from performing mechanically preventing the manual switching of inadmissible reduction ratios of the vehicle transmission (6), and the locking device (54, 56)~~ is pneumatically connected with a first valve (44) of the second set of valves (44, 46) for switching the range-change group transmission (14).

4. (PREVIOUSLY PRESENTED) The electro-pneumatic switching unit according to claim 3, wherein the locking device (54, 56) is pneumatically connected with the first valve (44) of the second set of valves (44, 46) for switching the position ~~slow~~ of the range-change group transmission (14).

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5. (NEW) An electro-pneumatic switching unit for a vehicle transmission (6) that includes:

a splitter group transmission (12) pneumatically switched via a first set of valves (36, 38); and

a range-change group transmission (14) that is pneumatically switched between a first range and a second range via a second set of valves (44, 46);

wherein switching of the second set of valves (44, 46) can be manually preselected by a vehicle driver via a gear lever (16), and the switching unit comprising:

an electronic control device (20) for controlling switching of the first and second sets of valves (36, 38, 44, 46);

a disengaging valve (42) mechanically coupled with the gear lever (16) and pneumatically coupled with the second set of valves (44, 46) to pneumatically actuate the second set of valves (44, 46) when the gear lever (16) is in a neutral position;

the switching of the range-change group transmission (14) is controlled by the electronic control device (20) when the second set of valves (44, 46) are actuated by the disengaging valve (42); and

a locking device (54, 56) is pneumatically actuated by the second set of valves (44, 46) according to a gear ratio range of the the second set of valves (44, 46) and mechanically coupled with the gear lever (16) to mechanically prevent the manual switching of inadmissible reduction ratios of the vehicle transmission (6).

6. (NEW) The electro-pneumatic switching unit according to claim 5, wherein the locking device (54, 56) is pneumatically connected with the first valve (44) of the second set of valves (44, 46) for switching a slow range of the range-change group transmission (14).

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